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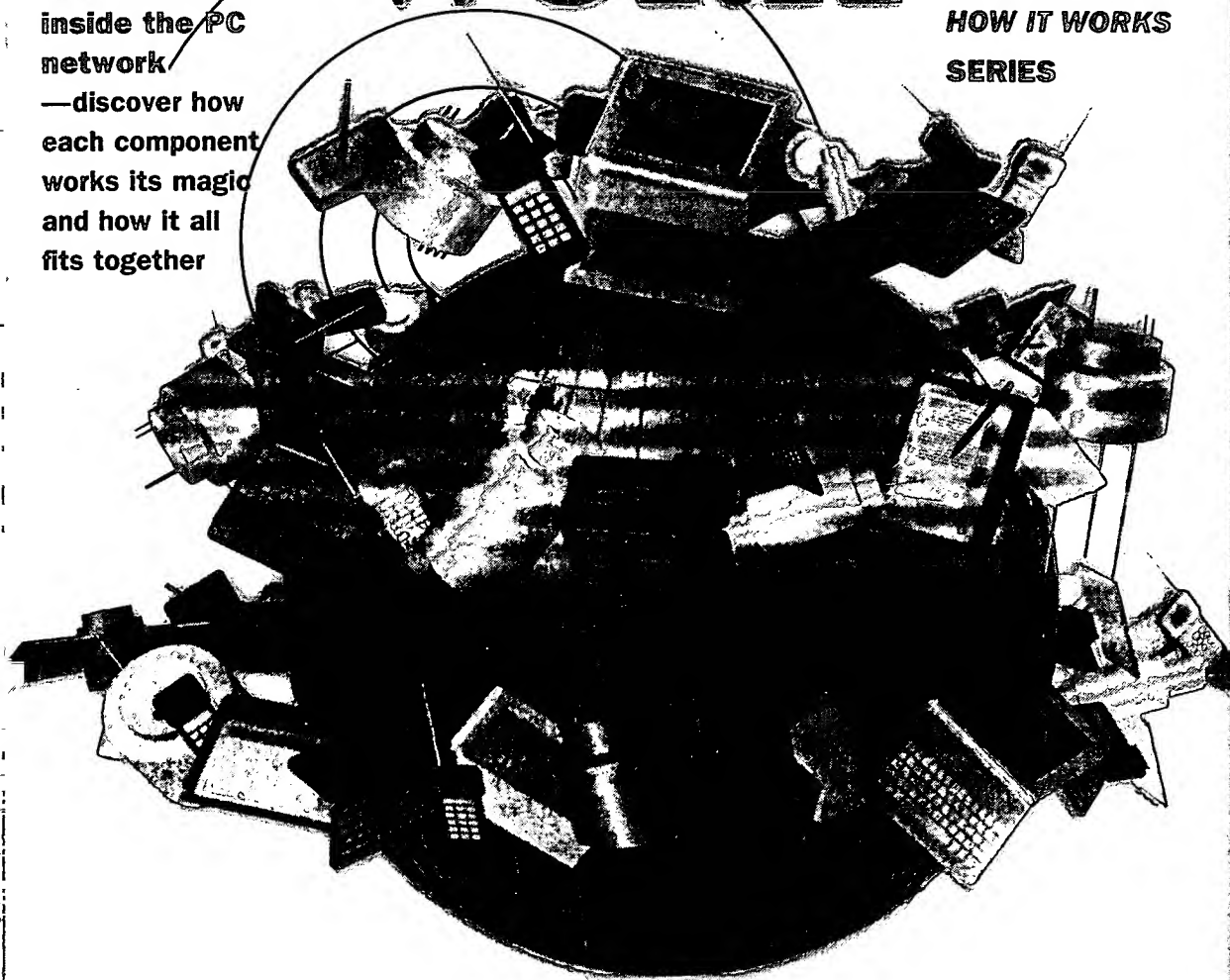
ORIGINAL

# HOW NETWORKS WORK

Take an  
intriguing  
visual journey  
inside the PC  
network

—discover how  
each component  
works its magic  
and how it all  
fits together

PART OF THE  
BESTSELLING  
HOW IT WORKS  
SERIES



by Frank J. Derfler, Jr. & Les Freed

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# How Networks Work

*Millennium Edition*

**Frank J. Derfler, Jr. and Les Freed**

**Illustrated by Stephen Adams, Laura Robbins, Patricia Douglas,  
and Michael Troller**

**que®**

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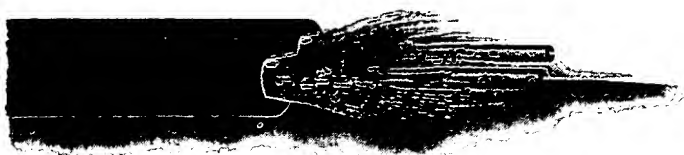
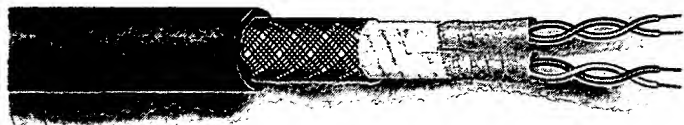
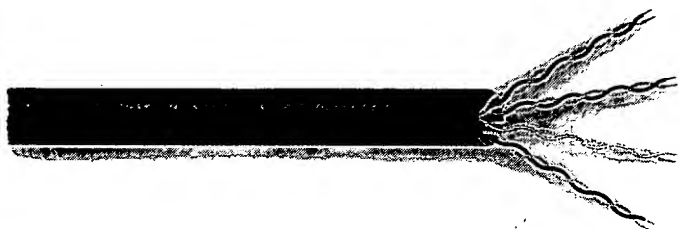
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**MORE** than 80 percent of the personal computers used in business and education are connected to a network or the Internet. The chances are good that you'll have to interact with a network soon if you don't already. This book helps you understand computer networks in several ways. It helps to scratch the intellectual itch you might have about where the data resides and what goes on inside the cable, equipment, and software. If you understand the basic structure and operation of a network, you can be more efficient in your job. The information in this book is an excellent foundation for growth if you want to learn more about networking. Finally, you can use this book as a training tool for working on networked computers.

Computer networking didn't just emerge as a unique and independent technology. Networking depends on many things you've seen or are familiar with already. In fact, modern networks have roots in the early telegraph and telephone systems. In this book, we take advantage of those historical ties to explain and illustrate the underlying technology of networks in a simple graphic format.

Then, we move into modern networking and explain the relationships between the hardware and software in networks. Our illustrations detail packets, network interface cards, servers, routers, management software, and many other aspects of networking. Our constant goal is to provide useful information in an easily understood manner.

The information in this book isn't specific to any particular type of computer or network operating system. We illustrate models of operation and tell you how some popular products fit into the models. Whether your computer is an IBM PC, DEC VAX, or an Apple Macintosh; whether your network operating system is NetWare, LANtastic, or UNIX; and whether your cabling is copper or fiber-optic, the information in this book applies to your network.

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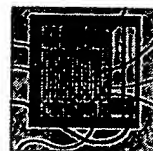
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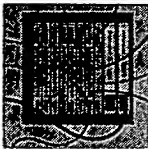
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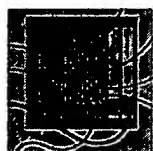


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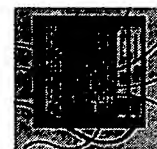
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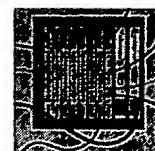
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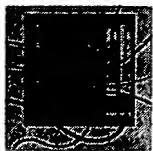
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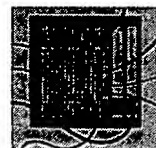
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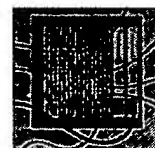
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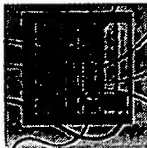
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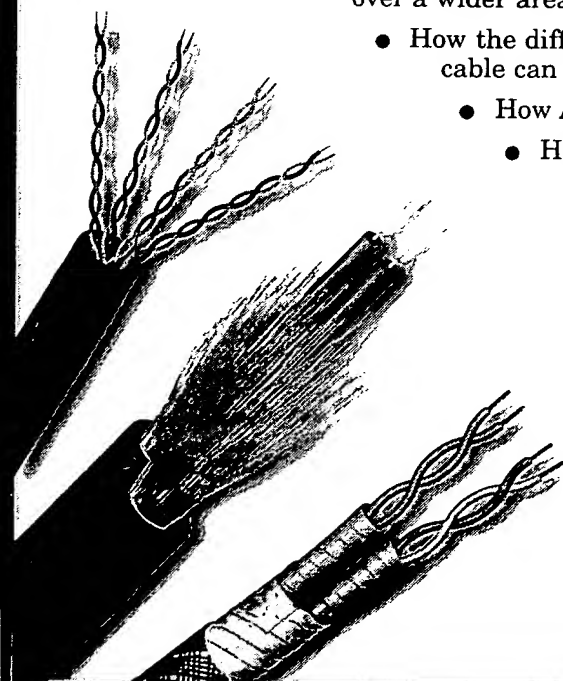
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